

Apple <--> Atari Communications

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The Apple-Atari Communications software allows you to easily transfer data between the two computers. The Apple controls all aspects of the transfer.

The Apple end is a routine called "XA" which loads at location 700 (\$2BC). It is designed to be called from BASIC. There are 5 entry points.

CALL XA,<byte>	Send single byte
CALL XA+3,<word>	Send two bytes
CALL XA+6,<start>,<length>	Send range of memory
CALL XA+9,<string exp>	Send string (and nothing but, ie: no zero)
CALL XA+12,<start>,<length>	Receive range of memory from Atari.

The Atari end of the program is auto-booted from the Apple-Atari Transfer Software disk. It loads from \$2000.2FFF and includes CORDOS which is used by The Print Shop and The Print Shop Companion. Zero page usage is \$80.8F. The Atari end of the transfer software is the part that must respond to commands from the Apple. It supports 7 different commands. The commands are called from the Apple by CALL XA,<command>. The parameters, if any, that follow are dependent upon the command. Here are the specifics:

0-Receive Block

<starting address> (word)
<length> (word)
<data>.....

1-Execute CORDOS command

<filename>,<zero byte> (text followed by zero)
<starting address parameter> (word)
<length parameter> (word)
<CORDOS command> (byte)

2-CATALOG a CORDOS disk, no parameters.

3-JSR to subroutine in Atari. Returns to transfer software.

<address> (word)

4-Read sectors into Atari memory

<buffer address> (word)
<sector number> (word)
<sectors to read in> (byte)

5-Write sectors from Atari memory

<buffer address> (word)
<sector number> (word)
<sectors to write out> (byte)

6-Send memory from Atari to Apple.

<starting address> (word) Atari receives
<length> (word) Atari receives
<data>.... Atari sends to Apple!

<p>① Receive Block</p> <p><start adr> 2</p> <p><length> 2</p> <p>data..... ?</p>	<p>① Execute CORDOS command</p> <p>'<filename>', 0 ?</p> <p><start parm> 2</p> <p><length parm> 2</p> <p><command> 1</p>	<p>② CATALOG no parms</p> <p>\$AAA,LLL-<FILENAME></p> <p>FREE-SECTORS=FFFF</p>	<p>③ JSR to routine in Atari</p> <p><routine> 2</p>
<p>④ read sectors</p> <p><buffer adr> 2</p> <p><start sector> 2</p> <p><#sectors> 1</p>	<p>⑤ write sectors same as ④</p>		

<p>⑥ send block from Atari to Apple</p> <p><start> 2</p> <p><length> 2</p> <p>> apple sends</p> <hr/> <p><data> Atari sends</p>
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handshake

Atari ready	data	apple ready	Apple
3	2 1	0	Send

Atari Data	not used	apple demand to send	Atari
3	2 1	0	Send

XA, <byte>	send
XA+3, <word>	
XA+6, <start>, <length>	
XA+9, <string>	
XA+12, <start>, <length>	Receive!

first Atari sends 1 bit to initiate transfer